

CLAIMS

1. An apparatus for processing fluid products, in particular paints and the like, comprising:

- 5 - a main structure (11) defining a housing space (15) with an access opening (16),
- door means (17) coupled to the main structure (11) and selectively movable from a closed position to an open position of at least part of the access opening (16), and
10 vice versa,
- support means (20, 22, 50) for at least one container of fluid products to be processed, housed in the main structure (11) and movable from an operating processing position to a position for loading/unloading the at least
15 one container,
characterized in that the door means (17) comprise movement means (22, 17, 74) mechanically interacting with the support means (22, 50) so as to move them from the operating processing position to the loading/unloading
20 position as a result of selective opening of the door means.

2. An apparatus according to claim 1, characterized in that the support means comprise at least one support member
25 which is operatively movable (20) in order to support and move the at least one container in an operating processing phase for the fluid products.

3. An apparatus according to claim 2, characterized in that
30 it comprises driving means (25, 44, 45, 46) which are connected firmly to the support means (22, 50) in order to impart, in use, a mixing movement to the at least one movable support member (20).

4. An apparatus according to claim 2, characterized in that the movement means (74) can be moved by way of the door means (17) from a rest position, in which they are disengaged from the support means (22, 50), to an engagement position, in which they engage with the support means (22, 50) in order to move them from the operating processing position to the loading/unloading position.

5. An apparatus according to claim 2, characterized in that it comprises damping means (52, 53, 76) to absorb the vibrations produced by the operatively movable support member (20) during the operating processing phase for the fluid products.

6. An apparatus according to claims 4 and 5, characterized in that the support means (50) are fixed to the main structure (11) with damping means (52, 53) being interposed.

7. An apparatus according to claim 6, characterized in that the damping means (52, 53) comprise a damping frame (52), on which the support means (50) rest, and dampers (53) which are fixed to the main structure (11).

8. An apparatus according to claim 1, characterized in that it comprises damping devices (76) which are mounted under the support means (22, 50) so as to move into abutment, in the operating position, with fixed surfaces (42) which are integral with the main structure (11).

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9. An apparatus according to claim 1, characterized in that the support means (20) are fixed to the door means (17).

10. An apparatus according to claim 1, characterized in that the door means (17) are hingedly connected in an articulated manner to the main structure (11) so as to be able to be opened according to a tilting movement.

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11. An apparatus according to claim 1, characterized in that it comprises sensor means (47) for detecting the position of the support means.

10 12. A method for using an apparatus for processing fluid products according to any one of the preceding claims, characterized in that it comprises the following phases:

- positioning at least one container for fluid products to be processed on the support means (20, 22, 50) in the
15 housing space (15) of the main structure (11),
- operating the apparatus for a predetermined period of time suitable for processing the fluid products, the door means (17) being in a closed position,
- moving the door means (17) from the closed position to an
20 open position to mechanically bring about the movement of the support means (20, 22, 50) from the operating processing position to the loading/unloading position in order to remove at least partially the at least one container from the housing space (15).

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13. A method according to claim 12, characterized in that the apparatus is a machine for mixing fluid products, the operation of the apparatus comprising the following phases:

- activating driving means (25, 44, 45, 46) in order to
30 move the at least one movable support member (20) for a predetermined time for mixing the fluid products contained in the at least one container,

- detecting the presence of the at least one movable support member in a predetermined position by sensor means,
- stopping the driving means upon the expiry of the predetermined time and when detection by the sensor means takes place.

14. A method according to claim 12, characterized in that the activation of the driving means comprises a final phase, in which the driving means are operated at a reduced speed in order to slow down the movement of the at least one movable support member before it is stopped and before the detection by the sensor means takes place, the movement of the at least one movable support member continuing owing to inertia following the stopping of the driving means.

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15. A method according to claim 12, characterized in that the positioning of the at least one container in the housing space comprises the following phases:

- positioning the at least one container on the support means and
- moving the door means (17) from the open position to the closed position in order to **mechanically** bring about the movement of the support means (20, 22, 50) from the loading/unloading position to the operating processing position for the fluid products.